

REMARKS

Summary Of The Office Action & Formalities

Status of Claims

Claims 1-8 are all the claims pending in the application. By this Amendment, Applicant is amending claims 1, 4, 5, and 7 and adding new claims 9-20. No new matter is added.

Additional Fees

Submitted herewith is a Petition for Extension of Time with fee.

Claim to Foreign Priority

Applicant thanks the Examiner for acknowledging the claim to foreign priority and for confirming that the certified copy of the priority document was received.

Information Disclosure Statement

Applicant also thanks the Examiner for initialing the references listed on form PTO/SB/08 submitted with the Information Disclosure Statement filed on April 4, 2006.

Drawings

Again, Applicant thanks the Examiner for acknowledging and accepting the drawings filed on April 4, 2006.

Specification

The abstract of the disclosure is objected to because it includes the legal phraseology "said". (Office Action at page 2.)

The disclosure is objected to because of the following informalities: no section headings are included. (Office Action at pages 2-3.)

Applicant is amending the specification to overcome these objections.

Claim Rejections - § 112

Claims 1-8 are rejected under 35 U.S.C. § 112, second paragraph, for the reason set forth at pages 3-4 of the Office Action.

Applicant is amending the claims to overcome this rejection.

Art Rejections

1. Claims 1-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Warby (US 4,744,495).
2. Claims 1-5 and 8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Klun (US 3,405,846).

Applicant respectfully traverses.

Claim Rejections - 35 U.S.C. § 102

1. Claims 1-8 In View Of Warby (US 4,744,495).

In rejecting claims 1-8 in view of Warby (US 4,744,495), the grounds of rejection state:

Warby shows a metering valve comprising a valve body (11), a metering chamber (16), and a valve member (12) that is slidable in the valve body (col. 3, line 42), wherein the metering chamber includes top and bottom orifices (45 and 44) and is defined by a circularly-cylindrical wall (30) which is rounded so that it does not form any angles (Figure 1).

Regarding claims 2-5, *Warby* shows the wall having a middle portion which is cylindrical (portion between 38 and 36), a top portion (38) connected to the top orifice which is rounded, and a bottom portion (36) connected to the bottom orifice which is rounded (shapes can be seen in Figure 1).

Regarding claim 6, *Warby* shows the metering chamber formed by two wall elements (30 and 31) which are fastened to each other in leak tight manner (col. 2, line 67 to col. 3, line 5).

Regarding claim 7, *Warby* shows the top and bottom orifices include respective sealing gaskets (14 and 15) which are substantially covered by the wall elements (Figure 1).

Office Action at pages 5-6.

Claim 1 covers a metering chamber having curved portions or curved surfaces in axial section that do not form any angles in order to avoid formation of meniscuses causing fluid retention and thus altering metering accuracy. *See also* the specification at page 1, lines 24-37; page 4, line 29 – page 5, line 2; page 5, line 35 – page 6, line 2).

For example, as seen in the example of the sole figure and as explained in the specification (page 4, line 20 – page 5, line 2), the axially curved sections are provided both between the circularly-cylindrical wall 27 and the top orifice 25 and between said wall 27 and the bottom orifice 26.

Both axially curved sections are thus axially curved radially inwardly from the outer wall 27 towards the orifices 25 and 26. Claim 1 specifically recites a metering chamber comprising two curved portions that are curved or rounded radially inwardly, at least in part, in an axial section so that said curved portions do not form any angles . . .”

In Warby (US 4,744,495), on the other hand, at least *the upper part is not provided with such a radially inward axial curvature*. Rather, in Warby, the curvature of the upper part is radially *outwards*, such that a problematic angle or corner is formed in the metering chamber between component 30 and seal 14.

That is, in Warby, there is a risk of forming a meniscus at these angles or corners, which is avoided by the claim device.

In view of at least the foregoing differences, the Examiner is kindly requested to withdraw the rejection based on Warby.

2. *Claims 1-5 And 8 In View Of Klun (US 3,405,846).*

In rejecting claims 1-5 and 8 in view of Klun (US 3,405,846), the grounds of rejection

state:

Klun shows a metering valve comprising a valve body (10), a metering chamber (14), and a valve member (20) that is slidable in the valve body (col. 2, ll. 64-66), wherein the metering chamber includes top and bottom orifices (area where 12 and 10 meet and top of 36) and is defined by a circularly-cylindrical wall (inside wall of 10) which is rounded so that it does not form any angles (Figure 1).

Regarding claims 2-5, *Klun* shows the wall having a middle portion which is cylindrical, a top portion (portion adjacent 12) connected to the top orifice which is rounded, and a bottom portion (portion adjacent 36) connected to the bottom orifice which is rounded (shapes can be seen in Figure 1).

Office Action at page 6.

In Klun (US 3,405,846), as with Warby (US 4,744,495), at least the upper part of the metering chamber is not provided with a radially inward axial curvature as claimed. Rather, in Klun, the upper part of valve body 10 forms an angle or corner with flanged diaphragm 12. Thus, as with Warby, Klun suffers from the same meniscus forming problem that is avoided by the invention.

In view of at least the foregoing differences, the Examiner is kindly requested to withdraw the rejection based on Klun.

New Claims

For additional claim coverage merited by the scope of the invention, Applicant is adding new claims 9-20. Claim 13 is believed to be allowable at least because the prior art does not teach or suggest an inside of the metering chamber bounded at least in part by a cylindrical wall

portion, a top curved portion and a bottom curved portion as claimed. Claims 9-12 and 14-20 are believed to be allowable at least because of their respective dependencies.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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